

=> "solid phase"
L1 125518 "SOLID PHASE"

=> Immunoassay
L2 128306 IMMUNOASSAY

=> ELISA
L3 132860 ELISA

=> L1 and L2
L4 7941 L1 AND L2

=> L1 and L3
L5 4087 L1 AND L3

=> HCV (w) antigen
L6 451 HCV (W) ANTIGEN

=> conjugated
L7 122341 CONJUGATED

=> L6 and L7
L8 10 L6 AND L7

=> L6 and L4
L9 10 L6 AND L4

=> L6 and L5
L10 0 L6 AND L5

=> coated (s) antigen (w) particle
L11 8 COATED (S) ANTIGEN (W) PARTICLE

=> HCV and L11
L12 0 HCV AND L11

=> L1 and L6
L13 17 L1 AND L6

=> "polystyrene latex"
L14 4872 "POLYSTYRENE LATEX"

=> L14 and L6
L15 1 L14 AND L6

=> "copolymer latex"
L16 6182 "COPOLYMER LATEX"

=> L6 and L16
L17 0 L6 AND L16

=> erythrocyte and L6
L18 3 ERYTHROCYTE AND L6

=> gelatine (w) particle
L19 3 GELATINE (W) PARTICLE

=> L3 and L6
L20 79 L3 AND L6

=> L19 and L6
L21 0 L19 AND L6

=> L20 and HCV

L22 79 L20 AND HCV

=> L22 and L16
L23 0 L22 AND L16

=> BSA and L22
L24 0 BSA AND L22

=> ovalbumin and L22
L25 0 OVALBUMIN AND L22

=> hemocyanin and L3
L26 951 HEMOCYANIN AND L3

=> L26 and L6
L27 0 L26 AND L6

L18 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:293595 CAPLUS
DOCUMENT NUMBER: 120:293595
TITLE: Thio group-containing antigen or peptide treated with
reducing agent for antibody determination
INVENTOR(S): Takei, Toshinori; Inoe, Juzo; Asahina, Aki; Tokita,
Susumu
PATENT ASSIGNEE(S): Dainabot Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06074956	A2	19940318	JP 1992-270684	19920828
JP 3225468	B2	20011105		

PRIORITY APPLN. INFO.: JP 1992-270684 19920828
AB A reducing agent is used for preventing oxidation of (immobilized) thio
group-containing antigen or peptide. The (immobilized) thio group-containing
antigen or peptide is used as a test reagent for antibody determination. In a
sep. experiment, erythrocyte-immobilized hepatitis C virus (HCV)
antigen was treated with DTT, 2-mercaptoethanol, or glutathione
and used for determining antibody to HCV core antigen, NS3, or NS4 protein,
resp.

L18 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:326511 CAPLUS

DOCUMENT NUMBER: 125:8459

TITLE: Reagent for assaying antibody against reduced antigen of hepatitis C virus and method of assaying therewith

INVENTOR(S): Inoue, Yuzo; Takei, Toshinori; Tokita, Susumu

PATENT ASSIGNEE(S): Dainabot Co., Ltd., Japan

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606355	A1	19960229	WO 1995-JP1634	19950817
W: CA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 08062219	A2	19960308	JP 1994-216781	19940819

PRIORITY APPLN. INFO.: JP 1994-216781 19940819

AB A method of assaying an antibody which reacts immunol. with hepatitis C virus (HCV) antigen in a specimen, wherein an anti-reduced HCV antibody, especially an antibody against 33C antigen, is assayed more accurately with a high sensitivity. As the antigen, use is made of at least a protein antigen coded in the NS3 domain of the HCV genome or a peptide having the activity substantially equivalent to that of the above antigen, and the antigen has been so converted or preserved as to substantially hold the form of a reduced NS3-related antigen. Examples of the treatment for the conversion and preservation include preservation of the NS3-related antigen in a dried state or in an inert gas atmospheric or

in

the presence of a deoxygenating agent, modification of the thiol group with a reagent for protecting or modifying the same, modification of the cysteine residue by genetic recombination techniques, such as site-directed mutagenesis, to prepare a variant recombinant NS3-related antigen, preservation of the antigen in the presence of an antioxidant till just before the use thereof, treatment of the antigen with an enzyme capable of cleaving the disulfide bond (-S-S-) into thiol groups, and treatment of the antigen with a substance having a substrate affinity for the cysteine residue. In example, glutathion, dithiothreitol, and 2-mercaptoethanol were used to preserve HCV 33C or core or C100 antigen-sensitized human erythrocyte for detecting antibodies in blood serum of HCV infected patients.

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:743751 CAPLUS

DOCUMENT NUMBER: 128:47287

TITLE: C type hepatitis virus disease diagnostic agent

INVENTOR(S): Takahama, Yoichi, Shiraishi, Junichi

PATENT ASSIGNEE(S): Toa Medical Electronics Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297141	A2	19971118	JP 1996-112442	19960507
US 6379886	B1	20020430	US 1997-850328	19970502
EP 806669	A2	19971112	EP 1997-107368	19970505
EP 806669	A3	19971126		
EP 806669	B1	20020410		
R: BE, DE, FR, GB, IT				
CN 1170875	A	19980121	CN 1997-109798	19970506
US 2002081630	A1	20020627	US 2001-28172	20011221
PRIORITY APPLN. INFO.:			JP 1996-112442	A 19960507
			US 1997-850328	A1 19970502

AB Hepatitis C virus antigen or carrier protein conjugate is coated on a solid support and used for detecting anti-hepatitis C virus antibody and for diagnosing HCV infection. The HCV antigen is core antigen, NS3 antigen, NS4 antigen, or NS5 antigen, and the carrier protein is bovine serum albumin, egg white albumin or hemocyanin.

Current application

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:743751 CAPLUS
DOCUMENT NUMBER: 128:47287
TITLE: C type hepatitis virus disease diagnostic agent
INVENTOR(S): Takahama, Yoichi; Shiraishi, Junichi
PATENT ASSIGNEE(S): Toa Medical Electronics Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297141	A2	19971118	JP 1996-112442	19960507
US 6379886	B1	20020430	US 1997-850328	19970502
EP 806669	A2	19971112	EP 1997-107368	19970505
EP 806669	A3	19971126		
EP 806669	B1	20020410		
R: BE, DE, FR, GB, IT				
CN 1170875	A	19980121	CN 1997-109798	19970506
US 2002081630	A1	20020627	US 2001-28172	20011221
PRIORITY APPLN. INFO.:			JP 1996-112442	A 19960507
			US 1997-850328	A1 19970502

AB Hepatitis C virus antigen or carrier protein conjugate is coated on a solid support and used for detecting anti-hepatitis C virus antibody and for diagnosing HCV infection. The HCV antigen is core antigen, NS3 antigen, NS4 antigen, or NS5 antigen, and the carrier protein is bovine serum albumin, egg white albumin or hemocyanin.

L13 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:5185 CAPLUS
DOCUMENT NUMBER: 116:5185
TITLE: Peptides and their use in detecting antibodies to hepatitis C virus (HCV)
INVENTOR(S): Arima, Terukatsu; Namba, Toshihiko; Tsuji, Masao
PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 63 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 445801	A2	19910911	EP 1991-103471	19910307
EP 445801	A3	19920701		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05262792	A2	19931012	JP 1991-68007	19910307
JP 3241057	B2	20011225		
JP 2002167395	A2	20020611	JP 2001-262321	19910307
JP 2003064098	A2	20030305	JP 2002-180856	19910307
US 5247067	A	19930921	US 1991-666719	19910308
PRIORITY APPLN. INFO.:				
		JP 1990-58700	A	19900308
		JP 1990-67439	A	19900316
		JP 1990-80100	A	19900327
		JP 1990-296899	A	19901031
		JP 1991-68007	A3	19910307
		JP 2001-262321	A3	19910307

AB Peptides binding antibodies specific to HCV antigen are presented. These peptides are useful for anti-HCV antibody assays. Peptide Lys-Asp-Arg-Thr-Gln-Gln-Arg-Lys-Thr-Lys-Arg-Ser-Thr-Asn-Arg-Arg-Ser-Lys-Asn-Gly-Lys-Lys-Lys, prepared by solid-phase synthesis method, was used in an enzyme immunoassay of antibodies to HCV in blood serum samples.

L13 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:21470 CAPLUS

DOCUMENT NUMBER: 116:21470

TITLE: Synthetic peptide and reagent for analysis of HCV
(hepatitis C virus) antibodies using the same

INVENTOR(S): Hayashi, Nakanobu; Hashimoto, Masakatsu

PATENT ASSIGNEE(S): Shima Kenkyusho Y. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03190898	A2	19910820	JP 1989-329746	19891221
PRIORITY APPLN. INFO.:			JP 1989-329746	19891221

AB A peptide having the common antigen determinant with HCV virus, i.e. H-Ile-Ile-Pro-Asp-Arg-Glu-Val-Leu-Tyr-Arg-Glu-Phe-Asp-Glu-Met-Glu-Glu-Cys-Ser-Gln-His-Leu-Pro-Tyr-Ile-Glu-Gln-Gly-Met-Met-Leu-Ala-Glu-Gln-Phe-Lys-Gln-Lys-Ala-Leu-Gly-Leu-OH (I), is prepared by the solid phase method on Fmoc- or BOC-Leu-bound resin (Fmoc = 9H-fluoren-9-ylmethoxycarbonyl, BOC = Me₃CO₂C) using Fmoc-protected amino acids. A reagent for analyzing HCV antibodies by the latex agglutination turbidimetry or light scattering photometry comprises (A), a solid reagent (i.e. I immobilized through phys. absorption or chemical through spacers on a solid support such as a microtiter reaction plate, beads, a sheet, a porous membrane, or magnetic latex, more preferably (high-d.) latex particles, immobilized erythrocyte, gelatin particles, or immobilized bacteria) and (B) human globulin antibodies (e.g. human IgG or anti-human IgM) labeled with a radioisotope, enzyme, biotin, fluorescent dye, or Eu chelate or (C) a similarly labeled I. I of high purity can be prepared in large quantity at lower cost than the conventional HCV-derived antigen and is easily immobilized on the support and the immobilized I shows good reaction with the HCV antibodies of HCV patients with high sensitivity and specificity.

L13 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:214922 CAPLUS
DOCUMENT NUMBER: 116:214922
TITLE: Preparation of peptides and their use for determination of antibodies specific to hepatitis non-A/non-B virus-related antigens
INVENTOR(S): Arima, Terumasa; Yamada, Kiyoko; Hatanaka, Tadashi; Nanba, Toshihiko; Tsuji, Masao
PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03284696	A2	19911216	JP 1990-85566	19900329
JP 1990-85566 19900329				
PRIORITY APPLN. INFO.:				
AB H-Glu-Gln-Asp-Gln-Ile-Lys-Thr-Lys-Asp-Arg-Thr-Gln-Gln-Arg-Lys-Thr-Lys-Arg-Ser-Thr-Asn-Arg-Arg-Ser-Lys-Asn-Glu-Lys-Lys-Lys-Lys-OH (I) or its peptide fragments having Lys-Arg-Ser-Thr-Asn (II) which specifically bind to antibodies against hepatitis non-A/non-B virus-related antigens (HCV antigens), are prepared as reagents for determination of anti-HCV antibodies with high sensitivity. Thus, I was prepared by the solid phase method on a BOC-Lys(Cl-Z)-bound resin (Cl-Z = f-cec6H4CH2O2C) using a peptide synthesizer model 431A (Applied Biosystems, Inc.). An enzyme immunoassay using I and 2 other peptides having the fragment II identified 93.3-96.7% the presence of anti-HCV antibodies in 30 serum samples vs. 20% when peptides without the fragment II were used.				

L13 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:640742 CAPLUS
DOCUMENT NUMBER: 130:50993
TITLE: Synthetic peptides as additional agents for detecting
antibodies to hepatitis C virus
AUTHOR(S): Semiletov, Yu. A.; Firsova, T. V.; Kruglov, I. V.;
Alekseenkova, T. I.; Petrakova, N. V.; Kalinina, T.
I.; Shebnev, V. A.
CORPORATE SOURCE: Inst. Virusol. im. Ivanovskogo, RAMN, Moscow, Russia
SOURCE: Voprosy Virusologii (1998), 43(3), 107-109
CODEN: VVIRAT; ISSN: 0507-4088
PUBLISHER: Meditsina
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Peptide fragments of hepatitis C virus (HCV) nonstructural protein NS4
capable of reacting with anti-HCV in enzyme immunoassay were synthesized.
Addition of synthetic peptides to recombinant nucleocapsid HCV
antigen adsorbed on solid phase notably
improved the efficacy of detection of antibodies to HCV in the sera of
patients with hepatitis C.

L13 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:282632 CAPLUS
DOCUMENT NUMBER: 126:329228
TITLE: Human monoclonal recombinant Fabs specific for
HCV antigens obtained by repertoire
cloning in phage display combinatorial vectors
AUTHOR(S): Plaisant, P.; Burioni, R.; Manzin, A.; Solforosi, L.;
Candela, M.; Gabrielli, A.; Fadda, G.; Clementi, M.
CORPORATE SOURCE: Instituto di Microbiologia, Facolta di Medicina,
Universita Cattolica del Sacro Cuore, Rome, 00168,
Italy
SOURCE: Research in Virology (1997), 148(2), 165-169
CODEN: RESVEY; ISSN: 0923-2516
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Mol. cloning of the antibody repertoire in phage display combinatorial
vectors is a powerful method enabling the dissection of the immune
response against a given pathogen. Here, the authors describe the
construction of a combinatorial library displayed on phage surface, containing
the antibody repertoire of a patient with high serol. response against
hepatitis C virus (HCV) antigens. Following selection
of the library against solid-phase-bound antigen, 16
human antibody Fab fragments able to bind to HCV-specific antigens were
generated and studied for binding characteristics. The majority of them
appeared to have specificity for the HCV c33 peptide. All the clones
reacting with the c33 peptide shared the same heavy-chain CDR3 sequence.
This is the first report of mol. cloning in a combinatorial phage display
vector of the antibody repertoire of an anti-HCV-pos. patient.

L13 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:447345 CAPLUS
DOCUMENT NUMBER: 119:47345
TITLE: Hepatitis C virus (HCV) assay and kit using
HCV antigen epitope-containing
polypeptides
INVENTOR(S): Lesniewski, Richard R.; Leung, Tat K.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9306247	A1	19930401	WO 1992-US7813	19920916
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
AU 9226794	A1	19930427	AU 1992-26794	19920916
JP 06510861	T2	19941201	JP 1992-506183	19920916
EP 642666	A1	19950315	EP 1992-920853	19920916
EP 642666	B1	20000412		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
AT 191792	E	20000415	AT 1992-920853	19920916
ES 2145746	T3	20000716	ES 1992-920853	19920916
JP 3219409	B2	20011015	JP 1993-506183	19920916
US 6596476	B1	20030722	US 1997-905054	19970801
US 1991-760292 A 19910916				
US 1989-456162 B2 19891222				
US 1990-610180 B2 19901107				
WO 1992-US7813 A 19920916				
US 1994-183207 B1 19940118				
US 1995-373920 B1 19950117				
US 1995-507740 B1 19950726				
US 1996-707355 B1 19960904				

PRIORITY APPLN. INFO.:

AB HCV antigen epitope-containing polypeptides are used in assays (combination assays, confirmatory assays, immunodot assays, and competition assays) for identifying the presence of HCV antibodies in a fluid sample. An immunoassay kit comprises such a polypeptide, sample preparation reagent(s), and detection and signal-producing reagent(s). Peptide p1684 (HCV 1684-1750), GRVVLSGKPAIIPDREVLYREFDEMEECSQHLPYIEQGMMMLAEQFKQKALG LLQTASRQAEVIAPAV, was synthesized by solid phase method on a phenylacetamidomethyl resin, and used in an immunodot assay along with some other HCV polypeptides to detect antiHCV antibodies in human blood serum samples.

L13 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1999:231556 CAPLUS
 DOCUMENT NUMBER: 130:251206
 TITLE: Chemiluminescent immunoassay for detecting antibodies to HCV
 INVENTOR(S): Chien, David Y.; Arcangel, Phillip; Tirell, Stephen; Ziegler, Wanda
 PATENT ASSIGNEE(S): Chiron Corporation, USA
 SOURCE: PCT Int. Appl., 22 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9915898	A1	19990401	WO 1998-US19693	19980922
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2303123	AA	19990401	CA 1998-2303123	19980922
AU 9894979	A1	19990412	AU 1998-94979	19980922
EP 1021719	A1	20000726	EP 1998-948398	19980922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001517797	T2	20011009	JP 2000-513145	19980922
US 6391540	B1	20020521	US 1998-158301	19980922
US 2001039009	A1	20011108	US 2001-775962	20010202
US 6537745	B2	20030325		
US 2003170618	A1	20030911	US 2003-354476	20030128
PRIORITY APPLN. INFO.:			US 1997-59703P	P 19970922
			US 1998-83921P	P 19980501
			US 1998-158815	A1 19980922
			WO 1998-US19693	W 19980922
			US 2001-775962	A1 20010202

AB The authors disclose to assays for detecting antibodies (e.g., to hepatitis C virus) in a sample in a single incubation step. The assays employ universal **solid phases** and/or universal detectable markers, and facilitate the detection and differentiation of antigens from the same source or from different sources in a single test sample. In an example, rat anti-human IgG antibodies, immobilized on paramagnetic microparticles, are used to capture antibodies capable of reacting with a fusion protein of synthetic HCV antigen MEFA-6 and superoxide dismutase. Chemiluminescent detection of captured antibodies is measured using anti-SOD antibodies conjugated with di-Me acridinium ester. The present invention includes test kits for performing the methods according to the invention.

L13 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:628723 CAPLUS
DOCUMENT NUMBER: 133:279822
TITLE: Laser-time-resolved fluorescence spectroscopy in immunoassays
AUTHOR(S): Pan, Lihua; Du, Jixian; Xie, Wenbing; Du, Qingyang; Yun, Qin
CORPORATE SOURCE: National Analytical Research Center of Eletrochemistry and Spectroscopy, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, Peop. Rep. China
SOURCE: Guangpuxue Yu Guangpu Fenxi (2000), 20(3), 277-279
CODEN: GYGFED; ISSN: 1000-0593
PUBLISHER: Beijing Daxue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB This paper described a laser-excited time-resolved fluorimmunoassay set. It made lanthanide ion to couple the anhydrde of diethylenetriaminepentaacetic acid (DTPAA) for labeling antibodies. The experiment used polystyrene tap coated with HCV antigen as the solid phase and a chelate of the rare earth metal europium as fluorescent label. A nitrogen laser beam was used to excite the Eu³⁺ chelates and after 60 μ s delay time, the emission fluorescence was measured. Background fluorescence of short lifetimes caused by serum components and Raman scattering can be eliminated by set the delay time. In the system condition, fluorescent spectra and fluorescent lifetimes of Eu³⁺ β -naphthoyltrifluoroacetone (NTA) chelates were measured. The fluorescent lifetime value is 650 μ s. The maximum emission wavelength is 613 nm. The linear range of europium ion concentration is 1x10⁻⁷- 1X10⁻¹¹ g \cdot mL⁻¹ and the detection limit is 1x10⁻¹²g \cdot mL⁻¹. The relative standard deviation of determination (n= 12) for samples at 0.01 ng \cdot mL⁻¹ magnitude is 6.4%. Laser-TRFIA was also found to be suitable for diagnosis of HCV. The sensitivity and specificity were comparable to enzyme immunoassay. The result was obtained with laser-TRFIA for 29 human correlated well with enzyme immunoassay.

L13 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:23040 CAPLUS
DOCUMENT NUMBER: 138:88633
TITLE: Methods for the simultaneous detection of HCV
antigens and HCV antibodies
INVENTOR(S): Shah, Dinesh O.; Dawson, George A.; Muerhoff, A.
Scott; Jiang, Lily; Gutierrez, Robin A.; Leary, Thomas
P.; Desai, Suresh; Stewart, James L.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003002749	A2	20030109	WO 2002-US19958	20020624
WO 2003002749	A3	20030710		
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2003108858	A1	20030612	US 2001-891983	20010626
US 2003152948	A1	20030814	US 2002-173480	20020617
US 6727092	B2	20040427		
EP 1412538	A2	20040428	EP 2002-746647	20020624
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRIORITY APPLN. INFO.:			US 2001-891983	A 20010626
			US 2002-173480	A 20020617
			WO 2002-US19958	W 20020624

AB The subject invention relates to methods for the simultaneous detection of Hepatitis C Virus (HCV) antigens as well as antibodies produced in response to HCV antigens. Furthermore, the subject invention allows one to detect antigens in the early, acute stage of infection, even prior to the development of antibodies, thereby allowing for early detection of infected blood and blood products, thus improving the safety of the blood supply.

=> "HCV diagnosis"
L1 49 "HCV DIAGNOSIS"

=> "HCV detection"
L2 129 "HCV DETECTION"

=> ELISA and L1
L3 6 ELISA AND L1

=> ELISA and L2
L4 16 ELISA AND L2

=> solid and L2
L5 4 SOLID AND L2

=> solid and L1
L6 0 SOLID AND L1

=> "synthistic antigen" and L1
L7 0 "SYNTHISTIC ANTIGEN" AND L1

=> synthetic (w) antigen and L2
L8 0 SYNTHETIC (W) ANTIGEN AND L2

=> carrier and L1
L9 1 CARRIER AND L1

=> carrier and L2
L10 2 CARRIER AND L2

=> D L10 IBIB ABS 1-2